

November 8, 2013

247626

The Public Service Commission of South Carolina
Attn: Clerk's Office
Post Office Drawer 11649
Columbia, SC 29211

NOV 12 2013
CLERK'S OFFICE

Re: Docket No. 2013-201-WS
Corrective Re-Filing of Response Exhibit B
to "Response to Rebuttal Testimony...
of Patrick C. Flynn" by Linda H. Fick

Office of the Clerk and Attn: Deborah:

Enclosed for corrective, re-filing is Response Exhibit B to my previously filed (November 7, 2013) "Response to Rebuttal Testimony 11/4/2013 and 10/3/2013; and Direct Testimony (9/19/2013) of Patrick C. Flynn." This corrective, re-filing of Response Exhibit B consists of five different pages, marked "Docket No. 2013-201-WS, LHF Response Exhibit B, pages 1,2,3,4,5", with notations in "red" color (i.e., red, black and white color pages). [These corrective pages to be re-filed replace the black and white pages which were faxed to your office earlier.]

Also, it is my understanding that page 5 of the Response, and page 2 of Response Exhibit A, which were filed November 7, 2013, but did not get included in the scanning process, have now been scanned to the Matter ID 247587 file, and those pages will be included together with the corrective re-filing of Response Exhibit B, in the total PDF file available to the Commissioners.

A copy of this letter and a copy of the corrected Response Exhibit B are being mailed to the parties of record as shown below.

Note to Deborah:

Thank you so much for your assistance in both the scanning of pages and the temporary black and white "faxing" of the Response Exhibit B pages. It was entirely my error in collating that caused the confusion re Response Exhibit B! I apologize for the extra work this caused you and I do appreciate your help in putting all of the material correctly before the Commission.

Linda H. Fick

Linda H. Fick
3006 Shandon Road, Rock Hill, SC 29730

cc: w/enclosures

Office of Regulatory Staff; Charles L.A. Terreni, Esq.; Scott Elliott, Esq.

SHANDON WATER QUALITY REPORT 2012

USSC #CCR 379

Water Quality Test Results

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/AL	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants								
Alpha emitters(B46002)	N	2008	4.1	N/A	pCi/L	0	15	Erosion of natural deposits.
Combined Radium(B46002)	N	2008	0.4	N/A	pCi/L	0	5	Erosion of natural deposits.
Inorganic Contaminants								
Cadmium	N	2008	0.11	ND-0.11	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries & paints.
Copper	Y	2012	1.1	1	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Thallium	N	2011	0.66	N/A	ppb	2	2	Discharge from electronics, glass, and leaching from ore-processing sites, drug factories.
Fluoride	N	2011	0.16	0 - 0.16	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer & aluminum factories.
Lead	N	2012	5	0	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.

Please Note: Both copper and lead in drinking water are associated with leaching from residential plumbing. USSC implemented an Optimal Corrosion Control Treatment Plan (OCCT) to reduce the amount of lead and copper in your drinking water in August 2012. Sampling in the first half of 2012 should provide results well within the action level for both lead and copper.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Shandon 2012 CCR 379

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2012 WATER QUALITY

Water Quality Test Results

SHANDON

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/AL	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
Nitrate (as Nitrogen)	N	2011	0.71	0.13 - 0.71	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Disinfection By-Products								
Halooacetic Acids (HAA5)	N	2011	19	1.12 - 19	ppb	N/A	60	By-product of drinking water chlorination.
TTHM (Total Trihalomethanes)	N	- 2011	38.3	5.53 - 38.3	ppb	N/A	80	By-product of drinking water chlorination.
Chlorine	N	2012	RAA=0.80	0.50-1.30	ppm	MRDLG=4	MRDL=4	Water additive used to control microbes.
Synthetic Organic Contaminants including Pesticides and Herbicides								
Di(2-ethylhexyl) phthalate	N	2008	3	0.88-3	ppb	0	6	Discharge from rubber & chemical factories.

2011

Water Quality Test Results

SHANDON

TEST RESULTS

Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/AL	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants								
Alpha emitters(B46002)	N	2008	4.1	N/A	pCi/L	0	15	Erosion of natural deposits.
Combined Radium(B46002)	N	2008	0.4	N/A	pCi/L	0	5	Erosion of natural deposits.
Inorganic Contaminants								
Cadmium	N	2008	0.11	ND-0.11	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries & paints.
Copper	Y	2011	1.5*	2	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Thallium	N	2011	0.68	N/A	ppb	2	2	Discharge from electronics, glass, and leaching from ore-processing sites, drug factories.
Fluoride	N	2011	0.16	N/A	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer & aluminum factories.
Lead	N	2011	4	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits.

Please Note: The level of copper measured in two of ten samples from the first half and second half of 2011 exceeded the copper action level of 1.3 ppm. This caused the 90th percentile to also be exceeded in 2011. Both copper and lead in drinking water are associated with leaching from residential plumbing. USSC implemented an Optimal Corrosion Control Treatment Plan (OCCCT) to reduce the amount of lead and copper in your drinking water in August 2011. Sampling in the first half of 2012 should provide results well within the action level for both lead and copper.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Shandon 2011 CCR 379
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2011

Water Quality Test Results

SHANDON

TEST RESULTS

Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/AL	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants								
Nitrate (as Nitrogen)	N	2011	0.71	0.13 - 0.71	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Disinfection By-Products								
Halocetic Acids (HAA5)	N	2011	19	1.12 - 19	ppb	N/A	60	By-product of drinking water chlorination.
THM (Total Trihalomethanes)	N	2011	38.3	5.53 - 38.3	ppb	N/A	80	By-product of drinking water chlorination.
Chlorine	N	2011	RAA=1.13	0.56-1.58	ppm	MRDLG=4	MRDL=4	Water additive used to control microbes.
Synthetic Organic Contaminants including Pesticides and Herbicides								
Di(2-ethylhexyl) phthalate	N	2008	3	0.88-3	ppb	0	6	Discharge from rubber & chemical factories.

2010 WATER QUALITY Test Results SHANDON

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/AL	Unit of Measurement	MCLO	MCL	Likely Source of Contamination
Radioactive Contaminants								
Alpha emitters(B46002)	N	2008	4.1	N/A	pCi/L	0	15	Erosion of natural deposits.
Inorganic Contaminants								
Cadmium	N	2008	0.11	ND-0.11	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries & paints.
Copper (90th percentile)	N	2010 January-June	1.8	3	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Copper (90th percentile)	N	2010 July-December	1.4	2	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride	N	2008	0.1	ND-0.1	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer & aluminum factories.
Lead (90th percentile)	N	2010 January-June	10	1	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.
Lead (90th percentile)	N	2010 July-December	0	0	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.
Nitrate (as Nitrogen)	N	2010	0.82	0.031-0.82	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Disinfection By-Products								
THM (Total Trihalomethanes)	N	2008	RAA=4.615	3.78-4.87	ppb	N/A	80	By-product of drinking water chlorination.
Chlorine	N	2010	RAA=0.92	0.59-1.25	ppm	MRDLG= 4	MRDL = 4	Water additive used to control microbes.
Synthetic Organic Contaminants including Pesticides and Herbicides								
Di(2-ethylhexyl) phthalate	N	2008	3	0.88-3	ppb	0	6	Discharge from rubber & chemical factories.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791). Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

The amount of lead measured in one of the ten samples collected from your water system during the first six months of 2010 exceeded the Action Level of 15 ppb; no samples collected in the last six months exceeded the Action Level. The 90th percentile was not exceeded during 2010. Normally the source of the lead is from the residential plumbing. The level of copper measured in three of ten and two of ten samples from the first half and second half of 2010 exceeded the copper action level of 1.3 ppm. This caused the 90th percentile to also be exceeded in 2010. Both copper and lead in drinking water are associated with leaching from residential plumbing. USSC is in the process of implementing an Optimal Corrosion Control Treatment Plan (OCCCT) to reduce the amount of lead and copper in your drinking water.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Utilities Services of South Carolina, inc. is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Do not boil your water to remove lead. Excessive boiling makes the lead more concentrated - the lead remains when the water evaporates. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. If you are concerned about lead in your

2009 WATER QUALITY TEST RESULTS

SHANDON

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/AL	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants								
Alpha emitters(B46002)	N	2008	4.1	0	pCi/L	0	15	Erosion of natural deposits.
Inorganic Contaminants								
Cadmium	N	2008	0.11	ND-0.11	ppb	5	5	Corrosion of galvanized pipes, erosion of natural deposits, discharge from metal refineries, runoff from waste batteries & paints.
Copper (90th percentile)	N	2009	1.1	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride	N	2008	0.1	ND-0.1	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer & aluminum factories.
Lead (90th percentile)	Y	2009	39.5	1 of 5	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.
Nitrate (as Nitrogen)	N	2009	0.7	0.37-0.7	ppm	10	10	Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits.
Disinfection By-Products								
THM (Total Trihalomethanes)	N	2008	RAA=4.615	3.76-4.87	ppb	0	8.8	By-product of drinking water chlorination.
Chlorine	N	2009	RAA=0.92	0.89-1.10	ppm	MPDLG=4	MPDL=4	Water additive used to control microbes.
Synthetic Organic Contaminants including Pesticides and Herbicides								
Di(2-ethylhexyl) phthalate	N	2008	3	0.86-3	ppb	0	6	Discharge from rubber & chemical factories.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791). Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

The amount of lead measured in one of the five samples collected from your water system exceeded the Action Level of 15 ppb; this caused the water system's calculated 90th% to also exceed the Action Level. Normally the source of the lead is from the residential plumbing. USSC has collected water quality samples to determine what actions can be taken by USSC to lessen the likelihood that lead will go into solution as the water moves through the residential plumbing. USSC is also collecting source water samples to ensure that the lead is not coming from the wells that serve your system. During 2010, USSC will be collecting more lead and copper samples as part of our water quality assurance testing.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Utilities Services of South Carolina, inc. is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Do not boil your water to remove lead. Excessive boiling makes the lead more concentrated - the lead remains when the water evaporates. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity.

2006 WATER QUALITY REPORT SHANDON

USSC ID #4650009

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/AL	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants								
Alpha emitters(B46001)	N	2006	2.34	1.31-3.69	pCi/l	0	15	Erosion of natural deposits.
Inorganic Contaminants								
Copper (90th percentile)	N	8/06	0.75	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Lead (90th percentile)	Y	8/06	23	2	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits.
Nitrate (as Nitrogen)	N	2006	0.81	0.13-0.81	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Disinfection By-Products								
TTHM (Total Trihalomethanes)	N	2005	RAA=6	0	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2006	RAA=0.76	0.6-1.0	ppm	MRDLG= 4	MRDL = 4	Water additive used to control microbes.

> Your water system exceeded the Action Level for Lead during the June to September sampling period in 2006. We issued a public notice at that time and began testing to determine if the lead was from the source water or was due to corrosion of household plumbing. The results of the testing indicated that the lead did not come from the water supply but may have been due to corrosion. We have collected additional water quality samples to determine if additional treatment is required to reduce the potential for corrosion and the possibility of lead leaching into your water from residential plumbing.

2008 Water Quality Report SHANDON

USSC SYSTEM ID #4650009

(Received July, 2009)

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/AL	Unit of Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants								
Alpha emitters(B46002)	N	2008	4.1	0	pCi/l	0	15	Erosion of natural deposits.
Inorganic Contaminants								
Cadmium	N	2008	0.11	ND-0.11	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries & paints.
Copper (90th percentile)	N	2008	0.675	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride	N	2008	0.1	ND-0.1	ppm	4	4	Erosion of natural deposits; water additive which promotes strong tooth; discharge from fertilizer & aluminum factories.
Nitrate (as Nitrogen)	N	2008	0.83	0.18-0.83	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Disinfection By-Products								
TTHM (Total Trihalomethanes)	N	2008	RAA=4.615	3.78-4.87	ppb	0	80	By-product of drinking water chlorination.
Chlorine	N	2008	RAA=0.98	0.70-1.25	ppm	MRDLG= 4	MRDL = 4	Water additive used to control microbes.

No Test For Lead INCLUDED

?> If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Utilities Services of South Carolina, inc. is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. Do not boil your water to remove lead. Excessive boiling makes the lead more concentrated - the lead remains when the water evaporates. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing

...to minimize exposure is available from the Safe Drinking Water Hotline (800-